

# MARINE RECREATIONAL INFORMATION PROGRAM

**FY 2015 Project Plan**

**NC For-Hire Logbook: Implementation, Validation, and Survey Standardization**

**Created on 10/17/2014**

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**Operations Team**

# 1. Overview

## 1.1. Background

The South Atlantic and Gulf of Mexico fishery management councils are currently investigating options regarding for-hire logbook reporting requirements for vessels with federal charter permits. A Technical Subcommittee has been formed with representatives from the South Atlantic Fisheries Management Council, Gulf of Mexico Fisheries Management Council, NOAA Fisheries Southeast Fisheries Science Center and the Southeast Regional Office, NOAA Fisheries Highly Migratory Species Office, the Atlantic States Marine Fisheries Commission (ASMFC), Gulf States Marine Fisheries Commission, Atlantic Coast Cooperative Statistics Program (ACCSP) and the Marine Recreational Information Program (MRIP) to look at data collection and reporting requirement options. This technical subcommittee was formed to provide recommendations for both councils to consider. DMF will work closely with this group to ensure that the system developed in North Carolina will satisfy all requirements from this initiative.

Previous for-hire logbook pilot studies supported by MRIP demonstrate that data entry restrictions built into electronic reporting platforms resulted in cleaner data and required much less review and follow-up with participants. However, maintaining compliance and timeliness of logbook reporting will require continuous effort. The routine task of tracking missing and late reports and conducting timely follow-up with delinquent vessels requires manpower. Data entry of paper log sheets also requires additional resources. Support and self-help resources will also be developed and made available.

Receptiveness of electronic reporting among for-hire captains was investigated during 2014 in North Carolina. For-hire captains were surveyed and asked to indicate all reporting methods they would be interested in using as well as a preference of the method (Table 1). Respondents also provided operating system preferences (Figure 1).

Willing to Use			Preference	
Method Number		Percent	Number	Percent
Paper	52	35.6	17	16.0
Web	110	75.3	62	58.5
Phone	77	52.7	22	20.8
Tablet	44	30.1	3	2.8
Other	8	5.5	2	1.9

Those with other methods suggested calling the captains (5), using email (1), having field agents collect the data (1), and information sharing between agencies. Among those listing a willingness

to use a phone or tablet, Apple IOS was the most frequent operating system for both methods.

## **1.2. Project Description**

Accurate and timely recording of catch and effort from all sectors of commercial and recreational fisheries is critical for proper management of fisheries resources. One sector of the for-hire industry lacking adequate sampling and surveying is the inshore guide boat due to vessels being commonly trailered and therefore highly mobile and difficult to locate for surveying. Estimates of catch for this sector are highly variable and do not meet the same standards that DMF requires of data from other fisheries.

A logbook reporting program will be developed for the North Carolina for-hire industry that can be used to conciliate any existing federal logbook reporting. Logbooks will contain records of catch, effort and discards at a trip level submitted weekly from the guide, charter and dive boat sectors of the industry. A high emphasis will be placed on electronic web-based and mobile reporting but paper reporting will also be an option. Each for-hire participant will be given the opportunity to determine which reporting platform best fits their operation.

In cooperation with NOAA fisheries, NCDMF will test and implement a standardized and MRIP certified logbook and validation data collection program design. The program design will be made available to MRIP regional partners as an alternative to the sample-based design currently in use on the Atlantic and Gulf coasts. NCDMF will take advantage of NOAA's many resources including; access to consultants specializing in survey design, expert staff, funding, and especially lessons learned from for-hire pilot studies. Cooperation with NOAA will be critical to eliminate reporting duplication and ensure the logbook provides for a national and regional database. There are currently three different for-hire logbook reporting programs in place in North Carolina. However, none are designed to provide a statewide census of all for-hire catch and effort. Evaluation of data elements collected from each of the existing logbook programs will be conducted to determine their purpose and a refined list of data elements will be created based on critical needs.

Harvest and discard estimates from the North Carolina for-hire logbook will meet the requirements for managing fisheries under the Magnuson-Stevens Reauthorization Act (including Atlantic HMS or jointly by the states and NOAA Fisheries) while providing for the regional database.

MRIP will cover all costs associated with project manager (biologist) and data control clerk for a period of two years. Upon completion of project, the NCDMF will assume future costs of managing for-hire validation costs. The NCDMF currently samples the for-hire fisheries via APAIS at approximately ten times the current MRIP base. This high level of sampling affords the NCDMF room to shift some sampler coverage within the for-hire mode to new dockside validation tasks. The staff shift will be supported by NCDMF. For-hire sampling will remain at a level above base

for purposes of benchmarking.

Operational costs such as printing of paper logbooks and travel for project coordination will be covered by MRIP.

MRIP funds will also be provided to ACCSP to coordinate development of a mobile phone logbook reporting application, continued refinement of tablet and web-based reporting, and data processes required to warehouse all logbook reporting and validation data collections.

### **1.3. Objectives**

1. Obtain precise estimates of effort and catch from the for-hire fishery of North Carolina.
2. Eliminate duplicative reporting (VTR, Councils, FHS, HMS).
3. Develop standardized validation and adjustment methods to address off-frame, under-reporting, and incomplete coverage (discards, rare events, negative trips).
4. Develop QA/QC procedures and other reporting standards.

### **1.4. References**

Donaldson, D., G Bray, B. Sauls, S. Freed, B. Cermak, P. Campbell, A. Best, K. Doyle., A. Strelcheck, and K Brennan. 2013. For-Hire Electronic Logbook Pilot Study in the Gulf of Mexico, Final Report. National Marine Fisheries Service. 63 pp.

## **2. Methodology**

### **2.1. Methodology**

#### **Establish Advisory Panel:**

The for-hire fishery in North Carolina is very diverse. For-hire vessels offer trips from every coastal and several inland counties in the state. Anglers on these trips target a variety of species ranging from giant blue marlin found in the offshore waters of the continental to anadromous species such as hickory shad taken in coastal rivers and their tributaries. For-hire vessels range from 80 foot headboats with a carrying capacity of 100 anglers to 16 foot John boats with only a captain and his client onboard. This diversity will most likely result in the need for different logbook reporting forms. In order to make sure that all for-hire operations are considered, participants from a cross-section of the different for-hire fisheries types will be included in the Advisory Panel. The panel will also provide information on existing logbook reporting requirements and support efforts to eliminate duplicate reporting. Programs developed with direct participation from industry members have a greater likelihood of success. Advisors will be involved in process leading up to implementation.

#### **Electronic Reporting:**

Electronic reporting systems (web based and mobile app) from the Standard Atlantic Fisheries Information System (SAFIS) developed by Atlantic States Cooperative Statistics Program (ACCSP) will be utilized by the NCDMF. These applications utilize built-in quality control features to prevent data entry errors and omissions. This practice is optimal for receiving high quality self-reported data from a large population of participants. Paper logbooks and electronic reporting options without built-in quality control features require more follow-up with participants to verify and attempt to correct self-reported data. Electronic reporting options that allow users the ability to record and store logbook data at-sea (tablets and smart phones) facilitate better record keeping and accurate recall by offering more flexibility for when and how users keep track of trip details and record logbook data (MRIP Pilot Study Gulf of Mexico). Quality assurance and control will be modeled similarly to North Carolina's TTP with pre-programmed data entry validation as well as data screening and edits by existing technical staff (MRIP port agents).

The electronic reporting system will include a feature that allows an entry of inactivity for a specified period. However, automated reminders should be developed to remind captains of reporting requirements. Regardless of whether or not real-time reporting is required of participants in a fishery, electronic reporting options that offer users the ability to record and store logbook data at-sea during reported fishing trips (example, smart-phone applications, tablets, etc.) are highly recommended to facilitate record keeping and accurate recall of logbook information and would also allow independent validation through dockside sampling. Captains will be capable of generating reports for record keeping purposes that are password protected. This will help create

cooperation and incentive for participation.

#### Enforcement and Compliance:

As required in North Carolina General Statutes 113-174.3 (For-Hire Licenses), “each individual who obtains a for-hire license shall submit to the Division logbooks summarizing catch and effort statistical data to the Division. The Commission may adopt rules that determine the means and methods to satisfy the requirements of this subsection”. Proposed rules with a spring 2015 effective date simply state that anyone with a for-hire license will be required to submit logbooks of catch and effort on a weekly basis.

The MRIP For-Hire Electronic Logbook Pilot Study in the Gulf of Mexico pilot study recognized enforcement as a critical element in any mandatory self-reporting survey and that enforcement included provisions for timeliness of reporting. As with any mandatory reporting program, timely reporting by participants should be required for logbooks and this requirement should be enforceable. To facilitate enforcement of timely reporting it is recommended that penalties should include license or permit suspension, license or permit termination, and civil penalties. North Carolina’s Trip Ticket Program (mandatory commercial fisheries landings reporting) will be used as a model for developing the primary enforcement standard operating procedures. Enforcement of reporting requirements will be carried out by DMF’s Marine Patrol section. Standard operating procedures and policies will be developed to ensure consistent application of the new for-hire reporting laws.

Efforts will be made during the first months of reporting to contact delinquent for-hire license and permit holders to bring them into the program voluntarily before resorting to the use of enforcement. In addition, an automated reminder system will be developed in concert with electronic reporting.

Sustaining compliance and timeliness of logbook reporting will require a continuous and high level of effort. The routine task of tracking missing and late reports and conducting timely follow-up with delinquent vessels will require significant manpower. The cost for this effort will not diminish over time and will be incorporated in the initial design and long-term funding plan before the start of the new logbook reporting program. The reporting frequency and associated cost for compliance tracking and timely follow-up procedures will both be factored into the initial design and long-term funding strategy for the logbook reporting system prior to implementation.

#### Validation/Benchmarking:

Validation is required for any self-reported census-styled landings data collection program to establish confidence in data and identify under-reported trips and under-reported catch. In

addition to harvest, released catch represents a portion of total catch and contributes to total fishing mortality for many managed fisheries in North Carolina. There are several ways to validate effort and catch from the for-hire fishery. In other MRIP pilot for-hire logbook projects, validation through vessel activity status verification was the least costly method and was effective for measuring reporting compliance. However, additional methods were needed during periods of low fishing activity or in states with low numbers of vessels. Dockside sampling is the least costly method for validation of catch, but is not effective for validation or estimation of released catch.

In addition for use as a validation tool, continued dockside sampling will also provide MRIP estimates for comparison with logbook data. If the differences between standard MRIP for-hire estimates of catch are significantly different than those data provided by logbooks, it might be necessary to adjust historic catch and effort estimates.

Data collected during validation will be incorporated within SAFIS applications by ACCSP and its contractors. This will streamline QA/QC and estimation by consolidating trip, catch, and validation data sources.

Participation by NC in the current For-hire Survey (FHS) will remain unchanged. During stakeholder meetings, for-hire operators were informed the project would occur simultaneously with the existing FHS. Individuals chosen to participate in FHS who submit logs electronically before the FHS weekly deadline will satisfy both requirements (Logbook and FHS).

Validation methodology will be determined by the project steering committee. Validation protocols developed in concert with the APAIS would be optimal however; if an independent dockside validation approach is required NCDMF will provide additional staffing.

## **2.2. Regions**

South Atlantic

## **2.3. Geographic Coverage**

North Carolina

## **2.4. Temporal Coverage**

2015-2016

## **2.5. Frequency**

weekly

## **2.6. Unit of Analysis**

vessel trip

## **2.7. Collection Mode**

logbook (paper, mobile application, web reporting)



### **3. Communications Plan**

#### **3.1. Internal**

Bi-weekly conference calls will communicate pertinent material among team members. All information distributed for these meetings will be archived on the MRIP Collaboration Tool. Additionally, a written summary will similarly be made available via MRIP Collaboration Tool.

#### **3.2. External**

Monthly reports will be made available to the MRIP Operations Team. Additionally, if information is required in a more timely fashion it will be provided to the MRIP Operations Team as requested.

## **4. Assumptions and Constraints**

### **4.1. New Data**

No

### **4.2. Track Costs**

Yes

### **4.3. Funding Vehicle**

grant, work order, cooperative agreement, ACCSP

### **4.4. Data Resources**

NC License (for-hire vessels)

MRIP

FHS

Logbook (new databases at ACCSP)

### **4.5. Other Resources**

Advisory Panels

Input from Stakeholder Meetings

### **4.6. Regulations**

North Carolina General Statutes 113-174.3 (For-Hire Licenses):

“each individual who obtains a for-hire license shall submit to the Division logbooks summarizing catch and effort statistical data to the Division. The Commission may adopt rules that determine the means and methods to satisfy the requirements of this subsection”

NC Marine Fisheries Commission will develop rules, November 2014.

### **4.7. Other**

ACCSP will provide electronic reporting tools and software for managing validation data

## 5. Risk

### 5.1. Project Risk

Table 1: Project Risk

Risk Description	Risk Impact	Risk Probability	Risk Mitigation Approach
As logbook implementation approaches concerns from stakeholders has steadily increased. The inclusion and engagement of stakeholders in the development and implementation of the logbook will be critical to promote optimal compliance.	<p>1) Compliance of mandatory reporting may not be enforced during the initial 6 months of project implementation. Loss of stakeholder support during this period has the potential to significantly impact validation by reducing both the quality and quantity of data collected.</p> <p>2) The influence of stakeholder concern and uncertainty carries the potential to impact the Marine Fisheries Commission's decision to rule on the means and methods of implementation for the logbook program.</p> <p>3) Failure of Marine Fisheries Commission to establish means and method for implementation of the project.</p>	Medium	Continuous communication of the proposed project benefits to stakeholders including: 1) Establish socioeconomic value of the fishery 2) Better management by accurately estimating catch and effort 3) Consolidation of data reporting to state and federal entities

## **6. Final Deliverables**

### **6.1. Additional Reports**

### **6.2. New Data Sets**

validation, for-hire logbook, for-hire estimate

### **6.3. New Systems**

standardized validation and adjustment program for logbook reporting of effort and catch.

## 7. Project Leadership

### 7.1. Project Leader and Members

Table 2: Project Members

Project Role	Name	Organization	Title
Team Leader	Douglas Mumford	NCDMF	Recreational Statistics Program Manager
Team Member	Don Hesselman	NCDMF	License and Statistics Chief
Team Member	Brenda Clark	NCDMF	License Program Manager
Team Member	Alan Bianchi	NCDMF	Commercial Statistics Program Manager
Team Member	Mike Cahall	ACCSP	Director
Team Member	Ron Salz	NOAA	DK
Team Member	NOAA STAFF		TBD
Team Member	ACCSP STAFF		TBD
Team Member	NOAA CONSULTANTS		TBD
Team Member	ACCSP CONSULTANTS		TBD
Team Member	Dallis Tucker	NCDMF	Biologist
Team Member	Andrew Cathey	NCDMF	Statistician
Team Member	Chris Wilson	NCDMF	Bio
Team Member	Tom Roller	Water Dog Guide Service	Guide

## 8. Project Estimates

### 8.1. Project Schedule

Table 3: Project Schedule - Major Tasks and Milestones

#	Schedule Description	Planned Start	Planned Finish	Prerequisites	Milestones
1	Rule development /adoption.	01/01/2015	02/28/2015		Y
2	Outreach, contact individual for-hire captains to determine and distribute preferred reporting mater	01/01/2015	12/31/2016		
3	Quarterly newsletter	04/01/2015	12/31/2016		
4	Establish advisory panel	01/01/2015	06/30/2015		Y
5	Coordinate with Federal/Regional Programs (eliminate reporting redundancies)	01/01/2015	06/30/2015		
6	Identify data elements across existing programs	01/01/2015	03/31/2015		
7	Paper logbook (develop and print)	01/01/2015	03/31/2015		Y
8	Evaluate available existing e-reporting systems (web and mobile)	01/01/2015	06/30/2015		

9	Develop e-reporting system web and mobile (North Carolina specific)	01/01/2015	06/30/2015		Y
10	Collaborate with NOAA for MRIP compatibility.	01/01/2015	12/31/2016		
11	Collaborate with NOAA/Contractors to develop validation methodology	01/01/2015	12/31/2016		
12	Develop SOP	01/01/2015	12/31/2016		Y
13	Implement Logbook Program and Validation Survey	06/01/2015	12/31/2016		Y

## 8.2. Cost Estimates

Table 4: Cost EstimatesYes

Project Need	Cost Description	Date Needed	Estimated Cost
Personnel	Biologist	01/01/2015	\$56900.00
Personnel	Data Entry/Quality Control Clerk	01/01/2015	\$40000.00
Operations	Logbook printing costs	01/01/2015	\$5000.00
Operations	Logbook printing costs	01/01/2016	\$5000.00
Personnel	Biologist	01/01/2016	\$56900.00
Personnel	Data Entry/Quality Control Clerk	01/01/2016	\$40000.00
Operations	travel	01/01/2015	\$3000.00
Operations	travel	01/01/2016	\$3000.00
Operation	Equipment (computers/database/pc software)	01/01/2015	\$5000.00
Operations	Software Development (coordinated via ACCSP)	01/01/2015	\$60000.00

TOTAL			\$274800.00
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